Fort Raleigh Shoreline Conference Held: Erosion Threatens Archaeological Sites

by E. Thomson Shields, Jr.

On December 10, 1993, the Roanoke Colonies Research Office and the National Park Service's Fort Raleigh National Historic Site cosponsored the Fort Raleigh Shoreline Conference. Held at the Fort Raleigh National Historic Site, this working conference was organized to bring together geologists, archaeologists, and historians in order to gain some sense of what erosion has occurred along the northern shore of Roanoke Island since the sixteenth-century, when the first contacts were made between Europeans and Native Americans in the region.

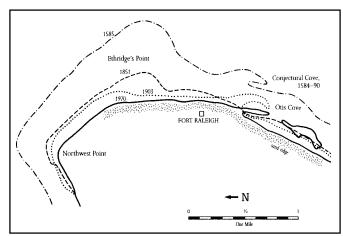
The conclusion of the scholars present was that a great deal of the northern shoreline has been lost to erosion—perhaps up to three-quarters of a mile since the 1580s. With that knowledge, a second conclusion reached was that if the remaining Native and European American archaeological sites are to be examined—both the known and the yet-to-be-discovered—then they must be explored and excavated soon. As conference participant David S. Phelps, a member of East Carolina University's Department of Anthropology, was quoted as saying in the Norfolk *Virginian-Pilot and the Ledger Star*, "We're at a crucial point. . . . What we're worried about is the need to get as much as we can before it's all gone."

The conference began with a walking tour of the north shore in the vicinity of the Fort Raleigh National Historic Site. Participants walked from Dough's Point on the west to just east of the Waterside Theatre. Phelps led the walk and indicated where archaeological remains have been excavated in the past, including sites that are now lost to the water.

What many participants found interesting were the dramatic shoreline cliffs created by erosion, some 15-20 feet tall, illustrating how much erosion constantly occurs on the island's north shore. The erosion is especially rapid during winter storms, sometimes with strong northeast and sometimes with strong northwest winds pushing the waters of the Albemarle Sound against the island. Robert Dolan, a geologist from the University of Virginia who did research on the shore of the island some thirty years ago while in graduate school, pointed out how much shoreline had actually been lost since he began his work—from only a few feet in some locations to several hundred feet in others.

Standing below the cliffs, participants were able to see a line of grayish-black sand 3-6 feet below the surface of the island. Phelps and Dolan indicated that this layer of dark sand has been carbon dated from about the sixteenth century and is found uniformly throughout Roanoke Island. It marks the level below which no archaeological evidence has been found. Too, it is an indication of the slash and burn agriculture that occurred on the island among the native peoples—hinted at in John White's narrative of the 1590 voyage.

After the walk, four scholars gave presentations, two geologists and two archaeologists. Stanley Riggs, from East



In 1972, R. Dolan and K. Bosserman posited this map of shoreline erosion along the northern end of Roanoke Island between 1585 and 1970. Recent discussions have questioned whether actual erosion has been more or less than suggested. (From David Beers Quinn, *Set Fair for Roanoke: Voyages and Colonies, 1584-1606* [Chapel Hill: U of North Carolina P, 1985], 402.)

Carolina University's Department of Geology, set the tone by giving the geological background to the reasons for the drastic erosion along Roanoke Island's north shore, particularly since the late eighteenth and early nineteenth centuries. According to Riggs, the major factor creating the erosion has been a world-wide rise in sea level. Following Riggs, Dolan spoke concerning the erosion patterns that have been observed along the north shore.

Both Dolan and Riggs indicated how the opening and closing of inlets along the coast have affected the erosion pattern. In particular, the closing of Roanoke Inlet has changed the currents flowing around Roanoke Island. In the eighteenth century, Roanoke Inlet was located more or less where the large sand dunes of Jockeys Ridge presently stand. Over the next hundred years or so, Roanoke Inlet moved to what is now Whalebone Junction (where the U.S. Route 64 causeway crosses from Manteo to Nags Head) before closing altogether.

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New Preservation Group Organizes on Roanoke Island

by Bebe Woody

Enhancing public awareness of Manteo's architectural heritage and encouraging resident support for sympathetic community development are challenges that Roanoke Island's newest citizen group have placed on their agenda. Calling themselves the Manteo Preservation Trust, their vision for Manteo is for the small town of about 1500 to capture and reflect its historical heritage, embracing its architectural past in a manner that reveals historical experiences and cultural expressions.

The newly formed group has identified two immediate goals: to complete a survey of local historic properties and to identify architectural designs sympathetic with the town's heritage. The organization recently applied to North Carolina's Department of Cultural Resources for a Survey and Planning Grant to help accomplish these goals.

Meanwhile, the group is busy organizing itself to develop its membership, appoint various program chairs, and define short and long range goals.

Interested individuals may contact Terry McDowell or Bebe Woody, Manteo Preservation Trust, P.O. Box 1029, Manteo, NC, 27954, or call (919) 473-3282/473-9851.

* * *

Shoreline

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This change in outlets to the ocean has forced the water from the Albemarle Sound to push along the north shore of Roanoke Island and then around the two sides of the island in order to exit at Oregon Inlet. In geological terms, the erosion is rather rapid. A channel has been cleared between Roanoke Island and Stumpy Point on the mainland where there were once islands only a little more than 100 years ago. (In fact, during the nineteenth century it was possible to walk from Roanoke Island to the mainland during low tide.) The erosion is rapid in human terms as well, as indicated by Dolan's comments about how much erosion he has personally seen in just the past 30 years—up to 300 feet in some places.

The other talks were by Phelps and by Nicholas Luccketti of the Virginia Company Foundation. Phelps gave participants an idea of where the various sites have been that archaeological artifacts have been located—both Native American and European—and their relationship to the eroding shoreline through time. Luccketti, an archaeologist and the project administrator for the Virginia Company Foundation's excavations at the Fort Raleigh Historic Site, showed the preliminary results he has achieved by putting the various maps of Roanoke Island from the past 400 years into computer readable format. He has tried to adjust the maps to a single scale and then overlay them on one another to show how the island has changed shape, but with only partial success.

After the presentations, all the participants joined into a general discussion. Among the conclusions reached were that the archaeologists, especially those from the Virginia Company Foundation, realized how much of the original "Cittie of Raleigh" may already be lost, a realization that gave an added sense of urgency to push forward with excavations around the Fort Raleigh National Historic Site. Taking into account where artifacts connected with the sixteenth-century English expeditions have recently been found, the archaeologists from the Virginia Company Foundation decided to push for excavation of the areas to the north and east of the present reconstructed fort.

Additionally, others, including Phelps and Riggs, found an impetus to dredge for artifacts just off shore. This dredging, particularly in the vicinity of two sixteenth-century barrel wells located in 1982 just off shore from the Waterside Theatre, is hoped to turn up artifacts which might indicate the size and location of previous sites. Though lacking their original context, such artifacts could be useful. As Phelps was quoted in the Raleigh, North Carolina, *News and Observer* as saying, "Unfortunately, nothing will be in place, but the cultural specimens will tell us something about time and types of sites and that kind of thing. . . . There is material from the [sixteenth-century] colony out there, and there is material from the Indian villages that were contemporary."

Aside from the presenters, other participants included various scholars, National Park Service staff members, and interested local residents. A final report of findings on the December Fort Raleigh Shoreline Conference is being assembled and should be ready sometime in the fall. Details about its availability will be noted in the next issue of the *Roanoke Colonies Research Newsletter*.

Advisory Committee Discusses Bibliography Project, Future Symposiums and Fort Raleigh Excavations

The Roanoke Colonies Research Office advisory committee met on the campus of East Carolina University on February 25, 1994, to discuss the various projects that the office has undertaken and to help plan future projects. Members of the advisory committee able to attend were Ivor Noël Hume, David S. Phelps, William Powell, and David Stick. Also in attendance were office director E. Thomson Shields, Jr., National Parks Service liaison Bebe B. Woody, Dean W. Keats Sparrow of East Carolina University's College of Arts and Sciences, and Virginia Company Foundation officers William M. Kelso and Nicholas Luccketti.

Several topics were discussed, including the project to assemble a bibliography of Roanoke colonies related materials, future symposium and conference plans, and excavations at the Fort Raleigh National Historic Site. Also discussed were the cataloguing project of artifacts from Roanoke Island, the creation of a relationship with the Durham Thomas Harriot Seminar, the results of the Fort Raleigh Shoreline Conference, the Manteo Preservation Trust, and the publication of papers from the May 1993 Roanoke Decoded symposium.

Tackling the issue of the Roanoke colonies bibliography project, the committee came to several conclusions. First, all known publications, from the original sixteenth-century texts to the most recent scholarship, should be included. The committee also agreed that every effort should be made to make the bibliography available in both printed and electronic forms, the latter preferably accessible by modem. This summer the Roanoke Colonies Research Office staff will look into various methods of achieving these goals. Finally, the committee felt that the project should be tackled in stages, first assembling a checklist of materials and later adding annotations, with the bibliography available to interested researchers at each stage of the project.

On the topic of symposiums and conferences, the committee suggested that a second invitational miniconference, similar to December's Fort Raleigh Shoreline Conference, should be held this coming fall to discuss the archaeology being done—and that which still needs to be done—in light of the erosion occurring on Roanoke Island's north shore. Plans for this conference are underway. Anyone interested should contact the Roanoke Colonies Research Office. Decisions concerning a larger, multi-disciplinary scholarly conference, tentatively scheduled for 1995 or 1996, will be made at the next advisory committee meeting.

A third item discussed was the state of excavation projects at the Fort Raleigh National Historic Site. Noël Hume indicated that he and other members of the Virginia Company Foundation who have worked on the excavations for the past three years need a few more pieces of information before they will draw their final conclusions about the most recent findings; however, what has been found thus far is coming out in an article for the journal *Colonial Williamsburg*. In light of their findings, however, the Virginia Company Foundation is raising money to excavate north of the reconstructed earth fort. Kelso,

president of the Virginia Company Foundation, noted that most of the money raised to date for their digs at Fort Raleigh has come from donors in Virginia, but that they are now approaching North Carolina donors as well. The advisory committee felt that giving the project the endorsement of the Roanoke Colonies Research Office, with its base in North Carolina, might help influence local donors to contribute. Additionally, the advisory committee suggested several sources of grants in North Carolina to the Virginia Company Foundation.

One shorter item discussed was the cataloguing project of artifacts from Roanoke Island. Being done under the direction of David Phelps by East Carolina University's Institute for Historical and Cultural Research archaeology laboratory, the cataloguing project will include both prehistoric and historic era materials from the Fort Raleigh National Historic Site's collections. The laboratory is also studying artifacts from private collections on the island.

Information on other items discussed, including the Manteo Preservation Trust and setting up formal ties with the Thomas Harriot Seminar, can be found elsewhere in this issue of the *Roanoke Colonies Research Newsletter*.

Alison Quinn

by Joyce Youings University of Exeter

Among the many delights of the Roanoke Conference at Manteo in May 1993 was the presence of "the Quinns," David and Alison. Once again they had made the difficult journey from Liverpool, unable to resist the opportunity of engaging in current discussions of Raleigh's westward enterprise and of meeting old friends. Alison was clearly frail in body but far from frail in mind or spirit, enjoying and occasionally engaging in the proceedings, and missing out on nothing, be it the cruise on the sound or the late-night session on the Frobisher discoveries on Baffin Island. It was with feelings of great sadness for David but happiness for Alison that we heard of her death on 2 November, "peacefully in her sleep."

Alison Moffat Robertson was a Scotswoman (she never lost her native accent) and a graduate of the University of Edinburgh, but it was when teaching way down south in Southampton, England, that she met and subsequently married the university lecturer from Ireland, thus entering into a partnership which lasted for well over fifty years. That they met when both were helping look after Basque children, refugees from the Spanish Civil War, points to her deeply sensitive and compassionate nature, most appropriately recognized in her family's wish that donations in her memory should be given to the National Society for the Prevention of Cruelty to Children. Never slow to speak her mind and with a

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From the Editor . . .

We were saddened to learn of the death of Alison Quinn, who with her husband, David Beers Quinn, was one of the people who brought prominence to the study of the sixteenth-century Roanoke colonization efforts. The editors of the *Roanoke Colonies Research Newsletter* want to thank Professor Joyce Youings for providing us with a wonderful remembrance in honor of Alison Quinn's remarkable life.

Several notices and queries of various sorts have come to the Roanoke Colonies Research Office since the publication of the newsletter's first issue:

- * Germaine Warkentin sends along notice of an upcoming interdisciplinary conference she is organizing. Titled "De-Centering the Renaissance: Canada and Europe in Multi-Disciplinary Perspective, 1350-1700," the conference is meant to coincide with the 500th anniversary of John Cabot's letter of patents to explore westward across the Atlantic Ocean. The conference is scheduled for March 7-10, 1996; however, proposals for sessions and paper presentations are due October 1, 1994. For more information, contact Professor Warkentin, Victoria College, University of Toronto, Toronto, Ontario, M5S 1K7, Canada. Her e-mail address is warkent@epas.utoronto.ca, and her fax number is (416) 585-4584.
- * Sue M. Maxwell is interested in hearing from anyone who can help provide sources for her research on Thomas Cavendish, high marshall of the 1585 Roanoke expedition. She is interested in "anything to do with the life and friends of Thomas Cavendish," especially "his friendship with Thomas Harriot, his patron Walter Ralegh, and any Spanish sources on his circumnavigation 1586-8." Though her approach is

historical, Maxwell is also interested in materials connected to the "scientific/navigational" aspects of Cavendish's life. Maxwell can be contacted at 40 Staindrop Road, Newton Hall, Durham, DH1 5XS, England.

* The Historical Publication Section of the North Carolina Division of Archives and History would like to remind researchers that its series of publications on "Sir Walter Raleigh and the First Colonists," published in connection with the 1984-1987 commemoration of the 450th anniversary of the first Roanoke voyages, is still available. The Division of Archives and History has a free catalog of all their publications. To receive a copy, write to Historical Publications Section (N), Division of Archives and History, 109 East Jones St., Raleigh, NC, 27601-2807, or call (919) 733-7442.

We are always glad to include notices, queries, and other materials. We will include them in the newsletter as is appropriate and as we have space.

The Roanoke Island Historical Association will open the 54th season of producing Paul Green's play *The Lost Colony* on June 10, 1994, at the Waterside Theatre in Manteo, North Carolina. *The Lost Colony* portrays not only Green's vision of what happened to Raleigh's colonists, but—as indicated by its subtitle, *A Symphonic Drama of Man's Faith and Work*—his vision of what mythic role the experiences of these colonists ought to play in the wider picture of North American and human history. The play is presented nightly, except Sundays, until the end of August. For more information, contact the box office at (800) 488-5012 or (919) 473-2127, or write *The Lost Colony*, P.O. Box 40, Manteo, NC, 27954.

Quinn

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delicious sense of humor, Alison radiated vitality and fun, and for her three children, Nick, Rory, and Brigid, life in the Quinn household can never have been dull. By the time the need arose, David had been well trained to look after visitors and to provide excellent meals.

But it was above all in their scholarly pursuits that the Quinns excelled as a team. Beginning as the invaluable indexer of David's very substantial output of books, Alison became an acknowledged expert in the art, being awarded the Wheatley Medal of the Library Association and later on the Gold Medal of the Society of Indexers. Would that all working historians had such assistance. From this and from her accompaniment of David on his travels around Britain,

Europe, North America and indeed the world (always, incidentally, as sole chauffeur), she became more involved in his research, especially in his search for and editing of documentary sources. She was a master of the nitty-gritty, especially in her knowledge of the natural world, and of the practicalities of daily living, supplying thereby an ideal complement to his grasp of the wider implications of their findings. With her as his mentor, David enjoyed that constant critical but informed appraisal which all true scholars seek, but few have readily at hand. As time went by, publications appeared under their joint authorship, culminating in the early 1994 appearance of their magnificent edition of Richard Hakluyt's *Discourse of Western Planting*, of which Alison was justifiably proud. She will be much missed, on both sides of the Atlantic.

A Checklist of 1992-1993 Roanoke Colonization Sources and Related Materials

The 1992-1993 checklist was assembled using the following electronic bibliographies on CD ROM: America: History and Life, Art Index, ERIC, Humanities Index, Infotrac, MLA International Bibliography, Readers' Guide to Periodical Literature, and Social Sciences Index. In addition, we have included works sent to the Roanoke Colonies Research Office that were not found on these databases. While searching the databases, our list of subjects covered a wide range of interests, including works on the 1580s Roanoke colonization efforts; writings of people connected to these attempts (such as the poetry of Sir Walter Raleigh); sixteenthcentury exploration by nations other than Great Britain (especially Spain); and beach erosion along the Outer Banks. If in looking over the checklist you find specific articles or books that we have missed, please let us know. We will include additions to the 1992-1993 list in the November issue of the Roanoke Colonies Research Newsletter and will put a 1994 checklist in next May's issue.

Some 1994 sources of interest that have already come to the office's attention have been added at the end.

- Allegood, Jerry. "Erosion Threatens Roanoke Island: The North End of the Island May Contain Clues About the Fate of the Lost Colony and Early American Indian Settlements." *News and Observer* [Raleigh, NC] 10 Dec. 1993: 3A.
- Allen, John L. "From Cabot To Cartier: The Early Exploration of Eastern North America, 1497-1543." *Annals of the Association of American Geographers* 82 (1992): 500-521.
- Auster, Paul. "The Death of Sir Walter Raleigh." *The Art of Hunger*. New York: Penguin Books, 1993. 75-81.
- Axtell, James. "The Columbian Mosaic in Colonial America." *Wisconsin Magazine of History* 76 (1992-93): 132-144.
- "Babbitt Rescinds Two Development Permits (Jetties Planned for North Carolina's Outer Banks and Oil and Gas Drilling Proposed in Badger-Two Medicine Area in Lewis and Clark National Forest)." National Parks Sept.-Oct. 1993: 16+.
- Beer, Anna. "'Knowinge shee cann renew': Sir Walter Ralegh in Praise of the Virgin Queen." *Criticism* 34 (1992): 497-515.
- Butler, Jon. Rev. of *Christianity Comes to the Americas*, 1492-1776, by Charles H. Lippy, Robert Choquette, and Stafford Poole. *Journal of American History* 79 (1993): 1573-1574.

- Cashin, Edward J. Rev. of *Christianity Comes to the Americas*, *1492-1776*, by Charles H. Lippy, Robert Choquette, and Stafford Poole. *Historian* 55 (1993): 394-395.
- Coote, Stephen. A Play of Passion: The Life of Sir Walter Ralegh. London: Macmillan, 1993.
- Cunningham, Karen. "A Spanish Heart in an English Body: The Ralegh Treason Trial and the Poetics of Proof." *Journal of Medieval and Renaissance* Studies 22 (1992): 327-51.
- DeVorsey, Louis, Jr. Keys to the Encounter: A Library of Congress Resource Guide for the Study of the Age of Discovery. Washington: Library of Congress, 1992.
- DeVorsey, Louis, Jr. "Native American Maps and World Views in the Age of Encounter." *Map Collector* 58 (1992): 24-29.
- Dolle, Raymond F. "Captain John Smith's Satire of Sir Walter Raleigh." *Early American Literature and Culture: Essays in Honor of Harrison T. Meserole*. Ed. Kathryn Zabelle Derounian-Stodola. Newark: U of Delaware P, 1992. 73-83.
- Earle, Carville. "Pioneers of Providence: The Anglo-American Experience, 1492-1792." *Annals of the Association of American Geographers* 82 (1992): 478-499.
- Gannon, Michael. "The New Alliance of History and Archaeology in the Eastern Spanish Borderlands." William and Mary Quarterly 49 (1992): 321-34.
- Giles, Thomas S. "How Did Native Americans Respond to Christianity? A Collection of Eyewitness Accounts." *Christian History* 11.3 (1992): 20-23.
- Glass, Jon. "Erosion Threatening Artifacts: Researchers Fear Their Search for Lost Settlement May Be Jeopardized." *The Virginian Pilot and the Ledger Star* 11 Dec. 1993: D1+.
- Harley, J. B. "Maps and the Invention of America." *Map Collector* 58 (1992): 8-12.
- Jackson, Donald Dale. "Hot on the Cold Trail Left by Sir Martin Frobisher." *Smithsonian* Jan. 1993: 119-30.
- Jones, H. G. Rev. of Keys to the Encounter: A Library of Congress Resource Guide for the Study of the Age of Discovery, by Louis DeVorsey, Jr. North Carolina Historical Review 70 (1993): 97-98.

- Lankford, George E. "Reysed After There Manner." Arkansas Archeologist 31 (1992): 65-71.
- "Lawsuit Challenges Permit for Jetties (Cape Hatteras National Seashore and Pea Island National Wildlife Refuge)." *National Parks* Jan.-Feb. 1993: 12.
- Li, Jianming. "Liangge Shijie Wenming Huihe yu Beimei Yindianren di Lishi Mingyun." ["The Convergence of Two World Cultures and the Historical Destiny of the North American Indians."] *Lishi Yanjiu* [China] 1 (1992): 20-34.
- Lindley, David. *The Trials of Francis Howard: Fact and Fiction at the Court of King James*. New York: Routledge, 1993.
- Linton, Joan Pong. "Jack of Newbery and Drake in California: Domestic and Colonial Narratives of English Cloth and Manhood." *ELH* 59 (1992): 23-51.
- Lippy, Charles H., Robert Choquette, and Stafford Poole. Christianity Comes to the Americas, 1492-1776. New York: Paragon House, 1992.
- McCarty, Laura P. "New Findings at the Lost Colony." *National Parks* July-Aug. 1993: 36-40.
- Mignolo, Walter D. "On the Colonization of Amerindian Languages and Memories: Renaissance Theories of Writing and the Discontinuity of the Classical Tradition." *Comparative Studies in Society and History* 34 (1992): 301-330.
- Mills, Wendy. "Fort Raleigh Gathering Plots Future Plans: Time Running Out on History Search." *Coastland Times* [Manteo, NC] 14 Dec. 1993: 1A+.
- Nicholl, Charles. "Instant Folklore." Rev. of A Play of Passion: The Life of Sir Walter Ralegh, by Stephen Coote, and The Trials of Frances Howard: Fact and Fiction at the court of King James, by David Lindley. Times Literary Supplement 19 Nov. 1993: 25.
- Rabb, Theodore K. "The Discovery of New Worlds." *Renaissance Lives: Portrait of an Age*. Ed. Theodore K. Rabb. New York: Pantheon Books, 1993. 139-174.
- Robertson, Allen B. Rev. of *Keys to the Encounter: A Library of Congress Resource Guide for the Study of the Age of Discovery*, Louis DeVorsey, Jr. *Nova Scotia Historical Review* 12 (1992): 155-175.
- Salmon, Vivian. "Thomas Harriot (1560-1621) and the English Origins of Algonkian Linguistics." Historiographia Linguistica 19 (1992): 25-56.

- Shawcross, John T. "A Contemporary View of Sir Walter Ralegh." *American Notes and Queries* ns 5 (1992): 131-133.
- Shields, E. Thomson, Jr. "East Makes West: Images of the Orient in Early Spanish and English Literature of North America." *Medievalia et Humanistica* ns 19 (1992): 97-116.
- Shirley, Rodney W. "The Dallas Pratt Collection of Maps at the American Museum, Bath." *Map Collector* 59 (1992): 2-5.
- Skowronek, Russell K., and John W. Walker. "European Ceramics and the Elusive 'Cittie of Raleigh.'" *Historical Archaeology* 27 (1993): 58-69.
- Smith, Roger C. "Ships in the Exploration of La Florida." *Gulf Coast Historical Review* 8.1 (1992): 18-29.
- Vaughan, Alden T. "Early English Paradigms for New World Natives." *Proceedings of the American Antiquarian Society* 102 (1992): 33-67.
- Watts, Gordon P., Jr. "The Western Ledge Reef Wreck: A Preliminary Report on Investigation of the Remains of a 16th-century Shipwreck in Bermuda." *The International Journal of Nautical Archaeology* 22 (1993): 103-124.
- Wood, Peter H. "Before Jamestown." Rev. of A New Andalusia and a Way to the Orient: The American Southeast during the Sixteenth Century, by Paul E. Hoffman. Reviews in American History 20 (1992): 8-13.
- Usner, Daniel H., Jr. "American Indians in Colonial History: A Review Essay." *Journal of American Ethnic History* 11.2 (1992): 77-85.

1994 Entries of Interest:

- "Colonial America's First Science Center." *National Geographic* 185 (1994): [viii].
- Devany, Ed. "Paul Green: Documentarian." North Carolina Literary Review 2.1 (1994): 47-51.
- Noël Hume, Ivor. "Roanoke Island: America's First Science Center." *Colonial Williamsburg* 16.3 (1994): 14-28.
- Wood, Howard. "The First Symphonic Drama." *North Carolina Literary Review* 2.1 (1994): 27.

* *

Ties Being Established Between Durham Thomas Harriot Seminar and Roanoke Colonies Research Office

(Note: Thomas Hariot spelled his name both Hariot and Hariot. Modern American usage is to spell his name with one r, as it appeared on the cover of Hariot's Briefe and True Report. For this reason, the Roanoke Colonies Research Newsletter follows this practice, though two r's are used whenever appropriate, such as in references to the Durham Thomas Harriot Seminar, its newsletter The Harrioteer, in bibliographic entries, and so forth.)

On December 13, 1993, the Durham (England) Thomas Harriot Seminar heard a report from Dr. Helen Wallis about last May's Roanoke Decoded symposium and the founding of the Roanoke Colonies Research Office. Dr. Wallis is the retired librarian of the British Library Maps Room and a member of the Roanoke Colonies Research Office advisory committee. As a result of her report, the members of the Harriot Seminar suggested that "close links" be established between the Roanoke Colonies Research Office and the seminar.

The Harriot Seminar is an annual meeting of scholars in Great Britain to present research related to Thomas Hariot (1560-1621), a member of the 1585-1586 colonization mission to Roanoke Island and author of *A Briefe and True Report* (1588) about the expedition's discoveries. Hariot was also one of the most prominent astronomers and mathematicians of the late sixteenth and early seventeenth centuries. The Harriot Seminar deals not only with the work of Hariot, but with Hariot's cultural milieu, covering topics as wide ranging as pharmacology, metaphysics, geography, and linguistics, as well as ideas about North America and its colonization. The seminar meets every other year in Durham and every other year in Cambridge.

In addition to its yearly meeting, the Harriot Seminar publishes a newsletter, *The Harrioteer*, makes papers from its seminar available to the public, and is associated with other gatherings, such as the Oxford Harriot Lecture. People interested in receiving *The Harrioteer* and information about the Harriot Seminar and its annual meetings should contact the Seminar's chair, Professor G. R. Batho, University of Durham, School of Education, Leazes Road, Durham, DH1 1TA, England. Professor Batho's phone numbers are (091) 374 3497 and 374 3498. His fax number is (091) 374 3506.

As part of the relationship being established, the Roanoke Colonies Research Office will become the official United States repository for the seminar's papers. Details about paper titles and how to order copies through our office will be published in the next issue of the *Roanoke Colonies Research Newsletter*.

The 1993 Harriot Seminar

At its 13-15 December meeting, the Durham Thomas Harriot Seminar heard several presentations about Thomas Hariot and the culture in which he lived. Speakers included Dr. Melanie Hansen of the University of Durham, Dr. Richard Dunn of the Victoria and Albert Museum, Dr. Jan Prins of Utrecht, Dr. Jon Pepper of University College, London, and Mr. Jonathan

Mirrlees-Black.

Dr. Hansen presented a paper entitled "Writing the Land: English Renaissance Antiquarianism" concerning the use of antiquarian texts in England to create national and regional identities. Recognizing the interdisciplinary nature of antiquarianism—including references to geography, cartography, history, and philosophy—Hansen pointed out that cultural materialist methodologies can be especially useful in interpreting antiquarians' narratives. Hansen argued that with the formation of the Antiquarian Society in the 1590s came the rise of antiquarianism as a scholarly endeavor, its pursuit as a collective activity, and its use of society members' social status to give authority to their written narratives about England's past.

Dr. Dunn's paper, entitled "Astrology in Harriot's Time," gave an overview portrait of astrology in Elizabethan England, showing that it played a central part in the beliefs and practices of Elizabethan society on all levels. Dunn emphasized three points to illustrate the important role of astrology in Elizabethan England. First, the most common astrological belief was that the stars hold some sort of unspecified influence on the earth (as opposed to the more highly questionable idea, even in Elizabethan England, that the stars influence every human action in a predictable manner). Second, astrology was employed in a wide variety of settings, from the court to the universities to rural practices, and the beliefs about astrology differed from one setting to another. Third, Dunn noted that astrology was rarely an independent study but instead was practiced as part of other endeavors, most importantly medicine, mathematics, and the magical/occult arts. Therefore, according to Dunn, ideas about astrology served as an underlying social and intellectual influence on the work of Hariot and his contemporaries, whether as an accepted methodology or in order to show astrology as an invalid practice.

In his presentation "Warner's Ideas about Space and Time," Dr. Prins talked about the unpublished work of the English mathematician Thomas Warner (ca. 1577-1643). Warner was an anti-Aristotelian who broke with the scholastic traditions of his day. Rather than accepting Aristotle's view that time derives its essence from the motion of material objects in space, Warner posited that time and space were independent entities, an idea derived from the work of Italian natural philosophers of the late sixteenth century. Prin argued that by positing time and space as separate entities, Warner anticipated the idea of absolute space and time formulated by Isaac Newton.

Dr. Pepper presented his paper "Harriot's Algebra," which discusses the various contributions made by Hariot to the study of mathematics throughout his lifetime. Hariot's first contributions were made in the early 1580s and consisted of solutions to the main navigational problems of the period, especially solutions that lead to the inclusion of distance rhumbs and the extension of the meridian line on Mercator charts. By the 1590s, according to Pepper, Hariot had created

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Evidence of a Sixteenth-Century "Science Center" Found at Fort Raleigh National Historic Site

In excavations done between 1991 and 1993, archaeologists from the non-profit Virginia Company Foundation have found what they believe to be remains from a scientific workshop used by Joachim Gans and Thomas Hariot for metallurgical and distilling experiments during the first attempt to colonize Roanoke Island in 1585-1586. The remains were found immediately west of the reconstructed earth works at the Fort Raleigh National Historic Site on Roanoke Island and are instigating archaeologists to re-evaluate their various ideas concerning the location of the original Fort Raleigh.

Information about the excavations done thus far can be found in the article "Roanoke Island: America's First Science Center," by Ivor Noël Hume, in the Spring 1994 issue of the journal *Colonial Williamsburg*. Shorter pieces on the excavations have been printed in various other journals. (For more information, see the source checklist on pages 5-6.) A complete report on the excavations done thus far is in the process of being written, and its conclusions should be available for the next issue of the *Roanoke Colonies Research Newsletter*.

The excavations have been directed by Ivor Noël Hume, retired foundation archaeologist for the Colonial Williamsburg Foundation and author of *Martin's Hundred*. Taking over during the coming year is Dr. William Kelso, president of the Virginia Company foundation. However, Noël Hume will continue on as project consultant. The project administrator for the Fort Raleigh National Historic Site excavations is Nicolas M. Luccketti, the executive director of the Virginia Company Foundation. The Virginia Company Foundation is in the process of raising funds to continue with further excavations north of the reconstructed earthen fort. The Virginia Company Foundation can be reached at 2080 Jamestown Road, Williamsburg, VA, 23185 or by calling (804) 229-9485.

a new higher order mathematics to continue work on the mathematical basis of the Mercator chart. In the early seventeenth-century, Hariot was working with the mathematics of light refraction. In 1603, Hariot worked on deriving the area of spherical triangles, and in 1608, he developed a sophisticated system of modelling for ship design.

The final presentation, "Sassafras—A Cure-all of Hariot's Time," was read by Mr. Mirrlees-Black, but was written by his mother-in-law, the late Mrs. Gillian Mirrlees. Mirrlees noted that the name *sassafras* did not appear in print until 1571 when the Spanish writer Monardes wrote about its medicinal values in the book translated into English as *The Joyful Newes out of the New Founde Worlde* (1577). However, the medicinal qualities of the plant were known in the French colonies prior to 1571. At the time Raleigh's Roanoke colonies were being established in the 1580s, sassafras was one of the more important natural resources explorers and settlers were looking for, in part because it had been suggested as a cure for syphilis. Other ailments that sassafras was thought to be able to cure were scurvy and ague.

The Durham Thomas Harriot Seminar will meet again September 12-14, 1994, in Cambridge, England, to coincide with a meeting of the British Society for the History of Mathematics. Scheduled presentations include Elizabeth Robertson on "Angels in Harriot's Time," B.J. Sokol on "The Problem of Assessing Thomas Harriot's A Briefe and True Report," Anna Beer, Stephen Clucas, and G. R. Batho on "The Writings in Prison of Sir Walter Raleigh and the Ninth Earl of Northumberland," Paul Harvey on "Englishmen Describing the Non-European at the Time of Harriot," M. Sharratt on "Look at it this way: Galileo and paradigm shifts," Paul Hunneyball on "The Architecture of Country Houses in Harriot's Time," and John Fauvel on "Mathematical Language in Harriot's Time." Anyone interested in more information should contact Professor Batho at the address noted above. The 1995 Durham Thomas Harriot Seminar will meet in Durham 18-20 December.

Centennial of Author Paul Green Celebrated

March 17, 1994, marked the centennial of writer Paul Green's birth. Green is perhaps best known as the author of the outdoor drama *The Lost Colony*, presented each summer at the Waterside Theatre on the grounds of the Fort Raleigh National Historic Site in Manteo. Written in 1937, *The Lost Colony* is one of the most influential literary portraits of the sixteenth-century English expeditions to Roanoke Island. This summer will be the 54th season that Green's first "symphonic drama" will be produced. He went on to write twenty other outdoor dramas before his death in 1981.

Several events and publications to mark the centennial have come to the attention of the Roanoke Colonies Research Office's staff. Lectures and seminars, as well as music and drama, were scheduled for March 19 on the campus of the University of North Carolina at Chapel Hill. On March 25, the Dare County (NC) Arts Council produced a concert featuring cellist Nancy Green and pianist Frederick Moyer,

two of Green's grandchildren, at the Fort Raleigh National Historic Site.

Publications connected with the occasion include A Southern Life: Letters of Paul Green, 1916-1981 (Chapel Hill: University of North Carolina Press, 1994), edited by Lawrence G. Avery. Also, the North Carolina Literary Review published two lengthy articles and several sidebars on Green and his life in its spring 1994 edition. The two full-length articles are John Herbert Roper's "Paul Green's War Songs," about Green's unpublished poetry written during his service in World War I, and Ed Devany's "Paul Green: Documentarian," about Green's approach to documenting the folklore that served as an important basis for his symphonic dramas. (For the North Carolina Literary Review pieces with specific references to The Lost Colony and Green's theories of writing, see the source checklist on pages 5-6.)
